# 700 <u>DIRECTOR OF SYSTEMS, TECHNOLOGY, AND ADVANCED CONCEPTS</u> (STAAC)

- Provide end-to-end systems engineering and leadership for technology development, advanced concepts, system architectures, and new missions and Projects.
- ◆ Provide Agencywide management of areas of technology development for Earth orbiting space missions, and for Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs (Level 2).
- ◆ Provide Agencywide Mission Services Management for the Space Operations Management Office (SOMO) at JSC.
- Lead the transfer and commercialization of technologies.
- ◆ Provide systems engineering and technical guidance for GSFC technology efforts (Level 3) and for GSFC SBIR/STTR programs (Level 3).
- Develop implementation and risk mitigation strategies for the infusion of technologies into programs, missions and projects; ensuring that technology advancements are carried from concept through final design;
- Lead the Center's new mission initiatives and business opportunities process.
- ◆ Provide business management functions from Level 2 program analysis, to pre-phase A, A, B, and proposal development of missions and projects.

#### **FUNCTIONAL STATEMENTS**

#### GODDARD SPACE FLIGHT CENTER

## 710 NASA TECHNOLOGY PLANNING & INTEGRATION OFFICE

## SBIR/STTR

- ♦ Develop Annual Solicitations
- ♦ Manage Proposal Evaluation Process
- ♦ Develop Program Metrics, Assess Performance
- ♦ Integrate Field Center Activities

## TECHNOLOGY PROGRAM INTEGRATION

- ♦ Investment Strategies
- ♦ Facilitate Technology Infusion
- ♦ Maintain Technology Data Base
- ♦ Develop Requirements and Roadmaps

## INSTITUTE FOR ADVANCED CONCEPTS

- ♦ Review Institute Performance
- Report Status and Establish Metrics
- ♦ Provide Access to NASA center Expertise
- ♦ Ensure Institute Cognizance of Enterprise Grand Challenges and Advanced Concepts Studies

## 720 <u>NASA SPACE OPERATIONS MANAGEMENT OFFICE (SOMO) MISSION</u> SERVICES OFFICE

- ♦ Commit SOMO services, facilities, and capabilities to customers
- ♦ Match program requirements to Agencywide capabilities and available capacity to provide the most effective support.
- ♦ Develop integrate, sustain, and operate the capabilities required to provide mission services to the flight projects and customers.
- ♦ Develop service performance standards, and assess the effectiveness of SOMO-provided services, including customer satisfaction.
- ♦ Develop technical and programmatic plans and schedules for approved and on-going developments.
- ◆ In coordination with the SOMO Office Systems Engineer, develop and recommend new space operations technology initiatives and standards to promote lower operations costs.

## 730 <u>SYSTEMS ENGINEERING DIVISION</u>

- ♦ END-TO-END MISSION AND INSTRUMENT SYSTEMS ENGINEERING
- Systems engineering for advanced concepts, design trades, architecture, operations concept, end-to-end information systems engineering.
- Systems engineering for development, integration, verification (all requirements), test and deployment.
- **♦ INSTRUMENT ANALYSIS**
- Functional and performance analysis.
- Support all phases of the life cycle.
- ◆ TECHNOLOGY
- Planning
  - \* Success metrics, infusion planning, investment strategy.
- Development
  - \* Systems engineering of cross-disciplinary development items.

## **FUNCTIONAL STATEMENTS**

## GODDARD SPACE FLIGHT CENTER

# 740 <u>MISSION INTEGRATION AND PLANNING DIVISION</u>

- ♦ Customer Interface
- ♦ Center NBC Business Opportunities Process
- ♦ IMDC
- ♦ Proposal Development
- ♦ Directorate Support
- ♦ Science and Technology Definition Leadership
- ♦ Instrument Management

## 750 TECHNOLOGY COMMERCIALIZATION OFFICE

#### COMMERCIAL TECHNOLOGY

◆ Track the discovery of new technology by both Goddard in-house and contract programs. Inventory GSFC technology and facilities for potential commercial application. Identify commercial programs that can make contributions to GSFC programs. Negotiate partnerships with industry, academia, and other government organizations.

## PATENT OFFICE

♦ Determine the patent potential of new technology. Direct the patenting of GSFC technology and oversee GSFC intellectual property issues. License NASA GSFC Technology and oversee GSFC patent portfolio.

## SBIR/STTR LEVEL 3

♦ Lead GSFC SBIR program and assist the Goddard small business community. Assure GSFC SBIR results are integrated with the Center's overarching technology needs.

## **OUTREACH INTEGRATION**

 Determine the viability and marketability of new technology. Market NASA GSFC technology to Industry, academia, and other government organizations. Document commercial successes.

#### **EXTERNAL ALLIANCES**

♦ Identify commercial programs that can make contributions to GSFC programs. Negotiate Alliances with other government, industry, and academic organizations.